

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0083801; AI 76989; PER20080001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Louisiana Department of Corrections
Avoyelles Correctional Center
1630 Prison Rd.
Cottonport, LA 71327
- II. **PREPARED BY:** Rachel Davis
- DATE PREPARED:** October 1, 2008
- III. **PERMIT ACTION:** reissue LPDES permit LA0083801, AI 76989; PER20080001

LPDES application received: July 8, 2008

EPA has not retained enforcement authority.

LPDES permit issued: October 1, 2003
LPDES permit expires: September 30, 2008

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Avoyelles Correctional Center.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located at 1630 Prison Road in Cottonport, Avoyelles Parish.
- D. The treatment facility consists of three oxidation ponds with aeration and chlorination.

E. Outfall 001

Discharge Location: Latitude 30° 58' 16" North
Longitude 92° 1' 6" West

Description: treated sanitary wastewater

Designed Capacity: 0.3252 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using:
V-Notch Weir with Continuous Flow Recorder

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V. RECEIVING WATERS:

The discharge is into an unnamed drainage ditch, thence into Bayou Des Glaises Diversion Canal, in segment 060207 of the Vermilion - Teche Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 060207 of the Vermilion - Teche Basin are as indicated in the table below^{1/}:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 060207 of the Vermilion - Teche Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 060207 of the Vermilion - Teche Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 27, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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For additional information, contact:

Ms. Rachel Davis
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:**Final Effluent Limits:**

Subsegment 060207, Bayou des Glaisses Diversion Channel, is not listed on LDEQ's Final 2006 303(d) List as impaired. However, subsegment 060207 was previously listed as impaired for organic enrichment/low DO, suspended solids/turbidity/siltation, nutrients, carbofuran and phosphorus, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 060207:

Total Maximum Daily Load (TMDL) For TSS, Turbidity, and Siltation for the Bayou Teche Watershed

"Point sources do not represent a significant source of TSS as defined in this TMDL. Point sources discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. Because the point sources are minor contributors and discharges of organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO". Therefore, effluent limitations will be permitted according to the current state policy.

Total Maximum Daily Load (TMDL) for the Pesticide Carbofuran in the Mermentau river and Vermilion-Teche River Basins

As per the TMDL "the most significant source of carbofuran in the Mermentau and Vermilion-Teche River Basins was from applications to rice fields to control the rice weevil." Therefore no limitation will be required in this permit.

Chatlin Lake Canal/ Bayou Du Lac and Bayou Des Glaisses Diversion Channel TMDLs for Dissolved Oxygen and Nutrients

As per the TMDL "Initial projection simulations showed DO concentrations less than 5 mg/L in the Bayou des Glaisses Diversion Channel even with over 50% reduction of nonpoint source oxygen demand load. The Village of Moreauville discharge was contributing to the low DO concentrations". A limitation for dissolved oxygen has been set at 5.0 mg/l (minimum) which is consistent with limitation established in the previous permit for this facility and the numerical criteria set for Subsegment 060207.

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OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg (lbs./day)	Monthly Avg	Weekly Avg	Basis
CBOD ₅	27	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size.
TSS	41	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen April-October November-March	5 14	2 mg/l 5 mg/l	4 mg/l 10 mg/l	Limits are based on the Wasteload Allocation for Bayou Boeuf (WLA 90.02) and the previous permit. The more stringent limits are due to toxicity concerns by the EPA
Dissolved Oxygen**	---	5.0 mg/l	---	Limits are based on the Wasteload Allocation for Bayou Boeuf (WLA 90.02) and the previous permit.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

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Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0083801: Issued: October 1, 2003
Expires: September 30, 2008

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen				
April-October	2 mg/l	4 mg/l	2/month	Grab
November-March	5 mg/l	10 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates the following inspections were performed during the period beginning **March 2006** and ending **March 2008** for this facility.

Date: January 26, 2007

Inspector: Jason Dewitt

Findings and/or Violations:

1. The facility exceeds design capacity nearly everyday
2. The facility had many DMR excursions noted for 2005 and 2006

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement actions administered

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A review of the files indicates the following most recent enforcement actions administered against this facility:

LDEQ Issuance:

Docket #: WE-CN-05-0015

Date Issued: December 14, 2007

Findings of Fact:

1. The facility has reported many DMR violations since 1998
2. The facility has exceeded the designed capacity flow almost every day

Order:

1. To take all steps that are necessary to come into compliance with the LPDES permit
2. To submit a comprehensive plan in 30 days for elimination and prevention of noncompliance and deficiencies
3. To submit to the enforcement division a detailed description of the circumstances surrounding the cited violations and the actions taken to achieve compliance

C) DMR Review

A review of the discharge monitoring reports for the period beginning **March 2006** through **March 2008** has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
TSS(monthly)	001	March 2008	33 lbs/day	106.4 lbs/day
TSS (monthly)	001	March 2008	15 mg/l	56.7 mg/l
TSS (weekly)	001	March 2008	23 mg/l	73.3 mg/l
TSS(monthly)	001	February 2008	15 mg/l	32.4 mg/l
TSS(weekly)	001	February 2008	23 mg/l	42 mg/l
TSS(monthly)	001	January 2008	15 mg/l	21.3 mg/l
TSS(weekly)	001	January 2008	23 mg/l	29.8 mg/l
DO	001	January 2008	5 mg/l	2.7 mg/l
CBOD(monthly)	001	November 2007	10 mg/l	12.3 mg/l
CBOD(weekly)	001	November 2007	15 mg/l	21.6 mg/l
TSS(monthly)	001	October 2007	15 mg/l	23.8 mg/l
TSS(weekly)	001	October 2007	23 mg/l	31.2 mg/l
Flow	001	September 2007	0.2625 MGD	0.569 MGD
TSS(monthly)	001	September 2007	33 lbs/day	38 lbs/day
TSS(monthly)	001	September 2007	15 mg/l	15.8 mg/l
CBOD(monthly)	001	August 2007	22 lbs/day	30 lbs/day
CBOD (monthly)	001	August 2007	10 mg/l	15 mg/l
CBOD(weekly)	001	August 2007	15 mg/l	27.2 mg/l
TSS(monthly)	001	August 2007	33 lbs/day	33.22 lbs/day
TSS(monthly)	001	August 2007	15 mg/l	16.6 mg/l
TSS(weekly)	001	August 2007	23 mg/l	26 mg/l
Flow	001	August 2007	0.2625 MGD	0.504 MGD
CBOD(monthly)	001	July 2007	22 lbs/day	162.79 lbs/day
CBOD(monthly)	001	July 2007	10 mg/l	17.8 mg/l
CBOD(weekly)	001	July 2007	15 mg/l	32.6 mg/l
TSS(monthly)	001	July 2007	33 lbs/day	45 lbs/day
TSS (monthly)	001	July 2007	15 mg/l	26 mg/l
TSS(weekly)	001	July 2007	23 mg/l	28.8 mg/l

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CBOD(monthly)	001	June 2007	22 lbs/day	162.79 lbs/day
CBOD(monthly)	001	June 2007	10 mg/l	80 mg/l
CBOD(weekly)	001	June 2007	15 mg/l	144 mg/l
TSS(monthly)	001	June 2007	33 lbs/day	52.9 lbs/day
TSS (monthly)	001	June 2007	15 mg/l	26 mg/l
TSS(weekly)	001	June 2007	23 mg/l	32.2 mg/l
Flow	001	June 2007	0.2625 MGD	0.374 MGD
CBOD(monthly)	001	April 2007	22 lbs/day	138.7 lbs/day
CBOD(monthly)	001	April 2007	10 mg/l	65 mg/l
CBOD(weekly)	001	April 2007	15 mg/l	127 mg/l
Flow	001	April 2007	0.2625 MGD	0.432 MGD
Flow	001	March 2007	0.2625 MGD	0.388 MGD
CBOD(monthly)	001	February 2007	22 lbs/day	87.62 lbs/day
CBOD(monthly)	001	February 2007	10 mg/l	33.25 mg/l
CBOD (weekly)	001	February 2007	15 mg/l	40.2 mg/l
TSS(monthly)	001	February 2007	33 lbs/day	89 lbs/day
TSS(monthly)	001	February 2007	15 mg/l	33.85 mg/l
TSS(weekly)	001	February 2007	23 mg/l	53.3 mg/l
Flow	001	February 2007	0.2625 MGD	0.432 MGD
CBOD(monthly)	001	January 2007	22 lbs/day	54 lbs/day
CBOD(monthly)	001	January 2007	10 mg/l	14.7 mg/l
CBOD(weekly)	001	January 2007	15 mg/l	26.4 mg/l
TSS(monthly)	001	January 2007	33 lbs/day	246 lbs/day
TSS(monthly)	001	January 2007	15 mg/l	67 mg/l
TSS(weekly)	001	January 2007	23 mg/l	88.3 mg/l
Flow	001	January 2007	0.2625 MGD	0.576 MGD
CBOD(monthly)	001	December 2006	22 lbs/day	92.43 lbs/day
CBOD(monthly)	001	December 2006	10 mg/l	30.2 mg/l
CBOD(weekly)	001	December 2006	15 mg/l	30.5 mg/l
TSS(monthly)	001	December 2006	33 lbs/day	72.38 lbs/day
TSS(monthly)	001	December 2006	15 mg/l	23.65 mg/l
TSS(weekly)	001	December 2006	23 mg/l	24.3 mg/l
Flow	001	December 2006	0.2625 MGD	0.475 MGD
TSS(monthly)	001	November 2006	33 lbs/day	67.69 lbs/day
TSS (monthly)	001	November 2006	15 mg/l	22.8 mg/l
TSS (weekly)	001	November 2006	23 mg/l	23.6 mg/l
Flow	001	November 2007	0.2625 MGD	0.432 MGD
TSS(monthly)	001	October 2006	33 lbs/day	98 lbs/day
TSS(monthly)	001	October 2006	15 mg/l	27.1 mg/l
TSS(weekly)	001	October 2006	23 mg/l	38.2 mg/l
Flow	001	October 2006	0.2625 MGD	0.720 MGD
TSS(monthly)	001	September 2006	33 lbs/day	63.09 lbs/day
TSS(monthly)	001	September 2006	15 mg/l	23.35 mg/l
TSS(weekly)	001	September 2006	23 mg/l	26.7 mg/l
pH	001	September 2006	9.0 maximum	9.01
Flow	001	September 2006	0.2625 MGD	0.432 MGD
TSS(monthly)	001	April 2006	33 lbs/day	66 lbs/day
TSS(monthly)	001	April 2006	15 mg/l	28.2 mg/l
TSS(weekly)	001	April 2006	23 mg/l	43.2 mg/l
Flow	001	April 2006	0.2625 MGD	0.576 MGD

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XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b) (2) Cc) and CD); 304(b) (2); and 307(a) (2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.3252 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.3252 \text{ MGD} \times 10 \text{ mg/l} = 27 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between **0.10** and **0.50** MGD.

Effluent Characteristics**Monitoring Requirements**

	<u>Measurement</u>	<u>Sample</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0039829.

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This language is established for municipalities that do not have either an approved or required Pretreatment program. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61 and the Best Professional Judgement (BPJ) of the reviewer.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report each year for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Louisiana Department of Corrections, Avoyelles Correctional Center, July 8, 2008.